

Applicant: Veli Käsmä et al.
Application No.: 10/507,451
Response to Office action mailed Apr. 20, 2005
Response filed June 21, 2005

Claim Listing

- 1-7. (cancelled)
8. (currently amended) A method for dry coating a surface of a continuous web, comprising the steps of:
- moving the continuous web having a first surface defining a first side and a second surface defining a second side, between a first electrode at a first potential located on the first side and spaced from the first surface and a second electrode at a second opposite potential, located on the second side and spaced from the second surface;
 - applying a dry coating powder of 10.1-99.5 wt-% (dry weight) of inorganic material and a polymeric binder material to the first surface of the web to form a first coated surface, and to the second surface of the web to form a second coated surface, forming both the first and the second coated surfaces essentially simultaneously by utilizing the difference in the electric potential between the first potential and the second opposite potential; and
 - finishing the first coated surface and the second surface by conveying the coated web through a nip formed between two heated members.
9. (previously presented) The method of claim 8, wherein the two heated members are two heated rolls.
10. (currently amended) The method of claim 9, wherein the two heated rolls are hard metal rolls.
11. (currently amended) The method of claim 10, wherein the two heated rolls are hard metal rolls having a surface roughness of less than 0.1 μm .

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12. (previously presented) The method of claim 9, wherein the two heated rolls have a temperature of 80–350° C.

13. (previously presented) The method of claim 8, wherein the first electrode and the second electrode are corona charging electrodes.

14. (currently amended) A method for coating a surface of a continuous web, comprising the steps of:
moving the continuous web having a first surface defining a first side and a second surface defining a second side, between a first electrode at a first potential located on the first side and spaced from the first surface and a second electrode at a second opposite potential, located on the second side and spaced from the second surface;
applying a coating powder to the first surface of the web to form a first coated surface, and to the second surface of the web to form a second coated surface, forming both the first and the second coated surfaces essentially simultaneously by utilizing the difference in the electric potential between the first potential and the second opposite potential; and
finishing the first coated surface and the second surface by conveying the coated web through a nip formed between two heated members;
wherein the first electrode and the second electrode are corona charging electrodes;
and
The method of claim 13, wherein the corona charging electrodes are wire-shaped electrodes which are positioned parallel to the web.

15. (currently amended) The method of claim 8, wherein the dry coating powder is pre-charged.

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16. (currently amended) The method of claim 8, wherein the dry coating powder is applied on the web by supplying it in an electric field created by the first electrode and allowing an electric field created by the second electrode to draw particles of the dry coating powder on to the web.

17. (new) The method of claim 8, wherein the dry coating powder is 80–95 wt.-% inorganic material.

18. (new) The method of claim 8, wherein the dry coating powder is 80–95 wt.-% inorganic material, and 20–5 wt.-% polymeric binder material.